

CLAIMS

What is claimed is:

1. A computer operable method for correlating call data records in a telephone system, comprising the steps of:
 - selecting a first and second call records, providing the call records comprise call characteristic information created in the telephone system and providing the call records identify same called station; and
 - establishing whether first and second call records are correlated.
2. A computer operable method as recited in claim 1, providing selected first and second call records arrive at a central data repository within a first time difference.
3. A computer operable method as recited in claim 1, providing when an originating point code of first and second call records is used to establish whether the call records are correlated, wherein the originating point code identifies an origination signaling transfer point having capability of transferring call set-up messages between two signaling path segments, the method step for establishing whether the first and second call records are correlated comprises:
 - when the originating point codes of first and second call records are different,
 - identifying first and second call records as uncorrelated;
 - otherwise,

16 identifying first and second call records as correlated.

4. A computer operable method as recited in claim 1, providing when a destination point code of first and second call records is used to establish whether the call records are correlated, wherein the destination point code identifies a destination signaling transfer point having capability of transferring call set-up messages between two signaling path segments, the method step for establishing whether the first and second call records are correlated comprises:

when the destination point codes of first and second call records are different,

identifying first and second call records as uncorrelated;

otherwise,

identifying first and second call records as correlated.

5. A computer operable method as recited in claim 1, providing first and second call data records are members of a group of call data records whose arrival at the central data repository was after a first preselected time and before a second preselected time.

6. A computer operable method as recited in claim 1, providing first and second call data records are members of a group of call data records whose called numbers have an identical value in at least one preselected digit position.

7. A computer operable method as recited in claim 1, the method steps further comprising:

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subtracting the second timestamp of the first call record from the second timestamp of the second call record, wherein second timestamp is the time of a first party disconnect signal; and

identifying first and second call records as uncorrelated.

- when first and second call records are identified as correlated and a third timestamp included with first and second call records is used to establish correlation of first and second call records,

subtracting the third timestamp of the first call record from the third timestamp of the second call record, wherein third timestamp is the time of a call connect signal; and

when the absolute value of the result of third timestamp subtraction method step is greater than a third preselected value,

identifying first and second call records as uncorrelated;

when first and second call records are identified as correlated, the identity

of a calling station included in first and second call records is used to establish correlation of first and second call records, and when the call records identify different calling stations,

identifying first and second call records as uncorrelated;

when first and second call records are identified as correlated, the charge number of the calling station included in first and second call records is used to establish correlation of first and second call records, and when the call records identify different charge numbers,

identifying first and second call records as uncorrelated; and

when first and second call records are identified as correlated, the jurisdiction of the call included in first and second call records is used to establish correlation of first and second call records, and when the call records identify different jurisdictions,

identifying first and second call records as uncorrelated.

11. A computer program storage medium readable by a computer, tangibly embodying a computer program of instructions executable by the computer to perform method steps for correlating call data records in a telephone system, the steps comprising:

selecting a first and second call records, providing the call records comprise call characteristic information created in the telephone system and providing the call records identify same called station; and

establishing whether first and second call records are correlated.

2 12. A computer program storage medium as recited in claim 11, wherein
selected first and second call records arrive at a central data repository
within a first time difference.

2 13. A computer program storage medium as recited in claim 11, wherein
when an originating point code of first and second call records is used to
establish whether the call records are correlated, wherein the originating
4 point code identifies an origination signaling transfer point having
capability of transferring call set-up messages between two signaling path
6 segments, the method step for establishing whether the first and second
call records are correlated comprising:

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10 when the originating point codes of first and second call records are
different,

12 identifying first and second call records as uncorrelated;

14 otherwise,

16 identifying first and second call records as correlated.

2 14. A computer program storage medium as recited in claim 11, wherein
when a destination point code of first and second call records is used to
establish whether the call records are correlated, wherein the destination
4 point code identifies a destination signaling transfer point having
capability of transferring call set-up messages between two signaling path
6 segments, the method step for establishing whether the first and second
call records are correlated comprising:

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10 when the destination point codes of first and second call records are
different,

identifying first and second call records as uncorrelated;

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otherwise,

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identifying first and second call records as correlated.

15. A computer program storage medium as recited in claim 11, wherein first
and second call data records are members of a group of call data records
whose arrival at the central data repository was after a first preselected
time and before a second preselected time.

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16. A computer program storage medium as recited in claim 11, wherein first
and second call data records are members of a group of call data records
whose called numbers have an identical value in at least one preselected
digit position.

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17. A computer program storage medium as recited in claim 11, the method
steps further comprising:

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when the first and second data records are identified as correlated,

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copying at least one data field from the first data record to the
second data record.

18. A computer program storage medium as recited in claim 11, the method
steps further comprising:

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when the first and second data records are identified as correlated,

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copying at least one data field from the second data record to the
first data record.

19. A computer program storage medium as recited in claim 11, the step for
establishing whether the first and second call records are correlated
comprising:

subtracting a first timestamp included with the first call record from first
timestamp included with the second call record, wherein first timestamp
is time of a call initiation signal;

when the absolute value of the result of first timestamp subtraction
method step is greater than a first preselected value,

identifying first and second call records as uncorrelated;

otherwise,

identifying first and second call records as correlated; and

when first and second call records are identified as correlated and a
second timestamp included with first and second call records is used to
establish correlation of first and second call records,

subtracting the second timestamp of the first call record from the
second timestamp of the second call record, wherein second
timestamp is the time of a first party disconnect signal; and

when the absolute value of the result of second timestamp
subtraction method step is greater than a second preselected
value,

identifying first and second call records as uncorrelated.

20. A computer program storage medium as recited in claim 11, the step for establishing whether the first and second call records are correlated comprising:

when first and second call records are identified as correlated and a third timestamp included with first and second call records is used to establish correlation of first and second call records,

subtracting the third timestamp of the first call record from the third timestamp of the second call record, wherein third timestamp is the time of a call connect signal; and

when the absolute value of the result of third timestamp subtraction method step is greater than a third preselected value,

identifying first and second call records as uncorrelated;

when first and second call records are identified as correlated, the identity of a calling station included in first and second call records is used to establish correlation of first and second call records, and when the call records identify different calling stations,

identifying first and second call records as uncorrelated;

when first and second call records are identified as correlated, the charge number of the calling station included in first and second call records is used to establish correlation of first and second call records, and when the call records identify different charge numbers,

identifying first and second call records as uncorrelated; and

32 when first and second call records are identified as correlated, the
jurisdiction of the call included in first and second call records is used to
34 establish correlation of first and second call records, and when the call
records identify different jurisdictions,
36 identifying first and second call records as uncorrelated.

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